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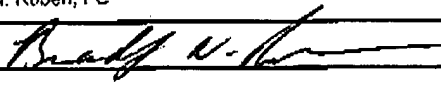
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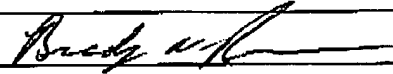
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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	09/826,383	
	Filing Date	4/4/2001	
	First Named Inventor	S. Yoshida	
	Art Unit	2823	
	Examiner Name	K. Nguyen	
Total Number of Pages in This Submission	6	Attorney Docket Number	114GI-143

ENCLOSURES (Check all that apply)		
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Firm Name	Bradley N. Ruben, PC		
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## IN THE UNITED STATES PATENT &amp; TRADEMARK OFFICE

Appln. Ser. No.:	Filed:	Inventor(s):	Atty Dkt:
09/826,383	4 April 2001	S. Yoshida	114GI-143 (0694-143)
Title: Electromagnetic Noise Suppressor, Semiconductor Device Using the Same, and Method of Manufacturing the Same			
Examiner: Khiem Nguyen		Art Unit: 2823	

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4 pages **VIA FACSIMILE**  
571-273-8300

## RESPONSE AFTER FINAL REJECTION

Dear Sir:

In complete and timely response to the Office action mailed 1 June 2005, in which the rejections were designated as final, reconsideration and reexamination of the subject application, in light of the following remarks, are respectfully requested.

The sole rejection of claims 1, 3-5, 7-17, 19-21, 29-30, 35-37, 43, and 44 is based on the alleged obviousness of those claims over a newly cited reference, Inomata (US 6,069,820). This rejection is respectfully traversed.

The action alleges that applicants' previous amendments necessitated the new ground of rejection. Those amendments included, *inter alia*, in all of the rejected claims that the "M component is present [in the M-X-Y composition] in an amount effective for [the] film to exhibit a saturation magnetization of 35 to 80% relative to the saturation magnetization of a bulk metal body consisting exclusively of the M component." However, the rejection admits, in multiple places, that Inomata does not explicitly disclose this limitation. Accordingly, the finality of the rejection is not proper because the examiner admits that the newly

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cited reference fails to address the above-quoted limitation added by the previous amendment. The rejection should be withdrawn.

Instead, the action alleges there is no evidence indicating that the added language regarding the saturation magnetization is critical, stating that "the specification contains no disclosure of either the critical nature of the claims dimensions [*sic*] or any unexpected results arising there from." To the contrary, pages 12-16 of the specification explicitly describe why the limitation of 35-80% saturation magnetization with respect to bulk M alone is important.

More particularly (at pages 13-14), M-X-Y granular magnetic bodies generally have low loss and exhibit large saturation magnetization. Such devices used, for example, as magnetic cores or high frequency inductors have a saturation magnetization of substantially 80% or greater than bulk M alone.

The X-Y component affects the electrical resistivity (specification at pages 14-15). As the thickness of the M-X-Y material decreases, such as from a magnetic core to a thick film, the permeability deteriorates (top of page 15). As the size approaches a thin film (several  $\mu\text{m}$ ) (page 15, lines 9-10), if the saturation magnetization is 60-80% (with respect to bulk M) then the material is suitable only for narrow-band frequencies but the resistivity is comparatively large at  $100\ \mu\Omega\cdot\text{cm}$  (page 15, lines 4-13). If the saturation magnetization is 35-60% (with respect to bulk M), then the material is suitable for wide-band high-frequency current suppression and the electrical resistivity is still greater, at least  $500\ \mu\Omega\cdot\text{cm}$  (page 15, lines 13-23). At even lower amounts of M, where the saturation magnetization is even lower in comparison with the saturation magnetization of M alone, there is almost no effect of the M component (bottom of page 15).

When the M-X-Y magnetic loss material is disposed immediately adjacent a semiconductor, as *explicitly* recited in the rejected claims, a material having an

eddy current loss (*compare* top of page 15) *per se* is not suitable, "but what is suitable is a composition wherewith the electrical resistivity becomes  $100\ \mu\Omega\cdot\text{cm}$  or greater." (Page 16, lines 9-11.) That is, where the M component is present to provide a saturation magnetization of 35-80% with respect to the saturation magnetization of bulk M alone (page 16, , lines 11-17).

Accordingly, the rejection is unsupported in the allegation that the specification fails to describe the importance of the saturation magnetization in the environment claimed (*i.e.*, attached to a bare semiconductor) because the specification clearly shows the criticality of the saturation magnetization limitation.

Substantively, Inomata does not appear to disclose anything about saturation magnetization, and neither do the portion cited in the rejection (col. 10, lines 50-63, and Figs. 6, 32, and 34). It is believed that any material having a ferromagnetic component (like Fe, Co, or Ni) will have some value for the saturation magnetization, but the reference does not disclose any relationship in respect of shielding properties. Fig. 34 relates to magnetoresistance. Inomata is not directed to shielding, but to *active* magnetic device, such as magnetic head or a memory device (Summary at col. 3). As explained (col. 10, ln. 40-49), Fig. 6 shows alternating layers of dielectric and ferromagnetic

In contrast with MPEP 2144.05(II), where the general conditions of a claim are disclosed in the art, Inomata does not appear to disclose any ranges of the saturation magnetization of the composition with respect to a bulk M material alone. This is not a case of optimization because the instant specification explains that the invention will not function as intended without the proper saturation magnetization, and Inomata's device is intended for a completely different purpose than the device claimed.

The *Graham* considerations require an examination of the differences between the claimed invention and the cited art. The rejection provides no motivation for providing the M-X-Y material recited in the claims.

Accordingly, Inomata is no more relevant to the claims as were the previously-cited references. The criticality of the claimed saturation magnetization is clearly described in the specification and is not disclosed in or suggested by the cited art. Therefore, the rejection should be withdrawn. At the very least, because the rejection did not require the newly cited reference in any material aspect to the previous amendments and admits that the newly cited reference does not disclose or suggest the claimed saturation magnetization, the finality of the rejection should be withdrawn.

Respectfully submitted,



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6 September 2005

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